

On Page 1, between lines 9 and 10, please insert the following heading:

--BACKGROUND OF THE INVENTION--.

Please replace the paragraph beginning on line 10 of page 1 with the following rewritten paragraph:

--Known illumination arrangements wherein the light source comprises a light-emitting diode or a laser diode, is often used for general illumination or background illumination for liquid-crystal displays (LCD). Herein, the optical waveguide directs light, emitted by the coupled light source, out from the optical waveguide at a waveguide end or at a centrally located window. In the latter example, the surface of the optical waveguide is structured in the window region, e.g. by knobs, grooves, or by some other roughening in order to homogenize the light exit. The optical waveguides are composed of transparent material, such as epoxy resin or polymethyl methacrylate (PMMA). In the course of guiding the light and its internal reflections, it is desirable to have as little light loss as possible, while maintaining cost-effective production and practical and simple assembly.--

Please replace the paragraph beginning on line 31 of page 1 with the following rewritten paragraph:

--A related art embodiment is shown in Figure 5. Here, a light-emitting diode 50 (LED) is coupled into an optical waveguide 51 which in turn is plugged into a mount 52a, 52b. The mount 52 and LED 50 are mounted on a printed circuit board (PCB) 53. The light emitted by the LED 50 is internally reflected at bevel 54. For production engineering reasons, in particular in favor of ease of assembly, the bevel 54 is not covered with a reflective material. During the internal reflection of light at bevel 54, angled preferably at 45°, light necessarily emerges from the optical waveguide. This light is lost for the envisaged application since it is not guided any further in the optical waveguide. On the other side, the mounts 52a, 52b simultaneously serve as reflectors which prevent light from emerging from the optical waveguide 51 on these sides. When observing the surface of the optical waveguide from the direction B, for example when the optical waveguide is embodied as LCD background illumination, some regions on the optical waveguide surface appear brighter than others (hot spots) as a result of the light internal reflection at the boundary surface 54 and the direct radiation of the light source. Hot spots are bright surface regions which appear in a light exit window and cannot be corrected by the surface configuration of the optical waveguide in the

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cont'd.

light exit window. Producing a special reflector for the inclined surface 54 in the form of an injection-molded part is costly and undesirable.--

On page 2, between lines 23 and 24 please insert the following heading and paragraphs:

--SUMMARY OF THE INVENTION

An advantage of the present invention is set out in a cost effective and easy to use illumination arrangement which can be produced at reduced engineering and manufacturing costs, be designed for high replication, and preserve, maximize and/or increase board space for component mounting.

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These and other advantages of the present invention are accomplished by an illumination arrangement, comprising: an optical waveguide; at least one light source for emitting light into the waveguide, the at least one light source coupled to the waveguide; and a housing defining a cavity for accommodating the waveguide and at least one light source therein, the housing further defining contiguous upper, lower and side walls, the upper and lower walls having reflective internal surfaces, and the upper wall defining a window from which light emitted by the waveguide escapes the housing. In addition, these and other advantages of the present invention are accomplished by a method for producing a light emitting component, comprising the steps of: forming a housing having a cavity defined by cooperating bottom, side and top walls, said walls having internal surfaces defining said cavity and external surfaces defining an outer perimeter of said housing, said internal surfaces being light reflecting, said walls being opaque, and said top walls defining rounded corners and a window; forming at least one light emitting source; forming an optical waveguide; forming a printed circuit board having means for facilitating communication of electricity to elements mounted thereon; mounting said waveguide within said cavity; mounting said at least one light emitting source on said board such that electricity is communicated to said light emitting source; mounting said housing over said at least one light emitting source, such that said source is coupled to said waveguide and light emitting from said source is transmitted by said waveguide and out said window.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

The novel features believed characteristic of the invention are set out in the claims below. The invention itself, however, as well as other features and advantages thereof, are best understood by reference to the detailed description, which follows, when read in conjunction with the accompanying drawings, wherein:--

Please delete the paragraphs beginning on line 24, page 2; on line 30, page 2; and on line 34, page 2.

On Page 3, between lines 10 and 11, please insert the following heading: --  
DETAILED DESCRIPTION OF THE INVENTION--.

Please replace the paragraph beginning on line 13, page 5, with the following rewritten paragraph:

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--Figure 2b shows another arrangement for the two shell elements. In this case, the optical waveguide is firstly introduced from the side into a shell element 22, which encloses the optical waveguide to an extent such that only a cover 23 has to be laterally placed in order to enclose the optical waveguide in the light-guiding region. In this exemplary embodiment, the connection between the shell elements 22 and 23 is effected by a plurality of snap-action devices 27, 28. Projecting knobs are arranged on the shell element 22 and the openings in the lugs 28 can latch into said knobs. The advantage of this arrangement is the releasability of the mount arrangement. In an embodiment of Figure 2a, too, the shell elements 22 and 23 can be provided with a fold, so that no light emerges at the abutting surface.--

Please replace the paragraph beginning on line 30, page 5 with the following rewritten paragraph:

--In the arrangement in accordance with Figure 1, it is possible to feed in light from only one light source 12. Preferably, however, a plurality of light sources 12a, 12b are provided, which, as in Figure 1, feed light into the optical waveguide from both sides. What is more, further light sources may be arranged perpendicularly to the plane of the drawing. This makes it possible to observe a high light intensity at the window 13. With the arrangement in accordance with Figure 1, it is possible for the light that is to be couple out, or the observation window 13, to be arranged remote from the light source 12. The optical waveguide 11 and the shell mount 10 can be produced extremely favorably by virtue of the production of injection-molded parts, at the same time the light guidance by virtue of the form of the optical waveguide channels and of the shell mount designed as reflectors being effected so optimally that a maximum of light can be utilized for the illumination purposes. The construction in the form of a bridge, means that it is possible to produce a space-saving